Executive Summary

The California Legacy Project is a unique statewide effort without parallel in the nation. It is charged with integrating conservation assessment and planning among five different objectives: (1) terrestrial biodiversity, (2) aquatic biodiversity and watershed values, (3) working landscapes, (4) recreation lands, and (5) urban open space. The Project developed this document as a part of a series of scheduled reports that the Resources Agency agreed to submit to the Joint Budget Committee of the California Legislature.

Decisions within each of the above conservation objectives typically affect the planning and policy choices in the other objectives. For example, decisions about developing conservation easements for high-value croplands near urbanizing areas affect where human population growth can be accommodated. Decisions about creating open space to improve the quality of life for underserved communities in the urban core may also benefit conservation goals for fish and wildlife. Decisions about linking isolated habitats through wildlife corridors may benefit recreation, ranching, and open-space goals, while limiting or re-directing other uses, such as new housing developments.

The land stewardship and management mandates of individual government departments are often focused on specific program or project areas that frequently have had the unintended effect of compartmentalizing decisions in isolation from one another. The demand for a holistic, statewide picture of the health and condition of California's landscapes and ecosystems is therefore growing, both within government and in the private conservation community.

The Project's integrated resource assessments will incrementally provide a firmer foundation for evaluating the optimal mix of conservation investments and implementation strategies. They also will be useful for documenting the conservation progress of agency programs according to adaptive management principles.

The Project's multiyear assessment effort and this current report stem from a science-based methodology that has been recently developed. The current report focuses on illustrating how the Legacy Project's methodology can be applied to describe conditions, stressors, and management responses for conserving biodiversity and working landscapes. It is also designed to stimulate discussions among agencies about important goals, indicators, and data improvements.

The report briefly summarizes the methodology used as a framework for the assessment and points out some of the important issues that the Legacy Project and its partners will need to address for full implementation. The methodology itself lays out an ambitious, but realistic work plan for assessing the health and condition of the state's lands and natural resources. Such an approach is possible as long as it is understood to be an incremental process that gradually provides more and better results with each iteration. The degree to which each assessment report improves depends on the level of collaboration achieved with state agencies, the degree with which existing assessment programs can answer statewide questions, and the level of funding for both the Legacy Project and other agency assessment programs.

The main body of the report summarizes current knowledge about some example indicators and provides maps to illustrate geographic differences across the state. The presentation of the information follows the key concepts in the methodology using condition, stressor, and response indicators. These are examples only, and more discussion is needed with other agencies to select the most appropriate indicators.

For the biodiversity objective, vegetation types and special-status species illustrate conditions. Stressors are shown by projected urban growth and road distribution. Management responses are illustrated by regional conservation planning efforts.

Two themes are used to illustrate working landscapes: forestlands and agricultural lands. For forestlands, conditions are illustrated by the distribution of forests and woodlands, stressors by changes in vegetative canopy cover, and management response by land enrollment in timber production zones. For agricultural lands, conditions are exemplified by the distribution of important farmlands and gross agricultural productivity; stressors are represented by farmland conversion, and responses by Williamson Act enrollments and agricultural easements.

Observations about each map, as well as comparison of patterns among maps, require more robust analysis before drawing conclusions to be used for evaluating strategic investment and management options. The report describes several options for these types of future analyses, which can be addressed with continued and increased funding. Some of these analyses are in progress by other state agency assessment programs, and their results will be integrated into future assessment reports. Each section also provides suggestions for other types of indicators that agencies can use for informing their management decisions.

In addition, the report identifies the important next steps for implementing the methodology. One key step is to conduct more discussion and continue to improve partnerships with natural resource agencies to identify goals, benchmarks, and indicators. Another key step is to improve the basic data and to conduct more robust analyses. This will require continued and expanded funding for both the Legacy Project as well as assessment programs within agencies.

The report provides several obvious conclusions about the status and trends of lands and natural resources, based on the data compiled so far. On the minus side of the balance sheet are the following conclusions:

(1) Conversion and fragmentation of land and natural habitat to accommodate human population growth is a continuing major stress factor on both working landscapes and biodiversity, especially in areas with many special-status species and near the urban fringe. Growth projections indicate increasing impacts in the foothills, the lower to mid-elevations of the Sierra Nevada, and the eastern side of the Central Valley, thus portending particular pressure on oak woodland habitats and perhaps reducing the extent of lands available for timber production;
(2) Several habitats (oak woodlands and coast redwoods) occur predominantly on private lands. Although efforts to improve private land stewardship are ongoing, much of these habitats remain at risk of conversion to residential land uses;
(3) Seven additional species are presumed or possibly extinct since the last report card on the state of U.S. plants and animals was issued in 1997;
(4) More than 224,000 acres of crop and grazing lands were converted to urban land uses between 1988 and 1998. In central and southern California, farmlands and grazing lands represent 30-90% of all lands converted to urban areas. Approximately 90% of the urban lands in Sutter, Yolo, Merced, San Benito, and Madera counties were converted from former farmlands or grazing lands;
(5) Three of the nine top-ranking counties in terms of gross agricultural output (San Diego, Riverside, and Merced) had relatively little land enrolled under the Williamson Act, suggesting that these lands may be at risk of conversion to urban uses.

The data allow us to draw some conclusions on the positive side of the balance sheet as well:

(1) The most recent urban development trends, based on a single modeling approach, seem to indicate that the ratio of “greenfield” to in-fill development is decreasing, i.e., population growth within existing urban areas has increased, and urban expansion onto adjacent lands seems to have slowed in some areas of the state. It remains to be seen, however, if this very recent trend will continue over the long term;
(2) Increased funding to meet a variety of conservation objectives for working landscapes, open space, and biodiversity protection has become available;
(3) Coordinated, collaborative, and stakeholder-driven protection and restoration efforts are increasing throughout the state. Regional planning efforts such as the California Natural Communities Conservation Planning process are being initiated or implemented in several parts of the state. These plans are focusing on some, but not all, of the areas with the highest numbers of special-status species. Other types of conservation planning, such as the CALFED Bay-Delta Program and Coordinated Resource Management Plans are also in progress to meet important conservation needs;
(4) Four of the top five counties with the highest acreage of forestland lost due to development between 1990 and 1998 have between 65% and 91% of their private timberlands enrolled in Timber Production Zones (TPZ). Enrollment in TPZ slows forest conversion;
(5) Three of the top nine counties in terms of gross agricultural productivity had more than 60% of their agricultural lands enrolled under the Williamson Act.